

**Report Date:** 30 Apr 2012

**Summary Report for Individual Task  
551-881-8135  
Maintain a Cargo Handling System  
Status: Approved**

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DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

DESTRUCTION NOTICE: None

**Condition:** Aboard a vessel, at sea, at anchor or moored alongside a pier, day or night, under all sea and weather conditions, Soldier will maintain a cargo handling system using ratchet handle lever with socket, safety goggles, work gloves, grease general purpose (MIL-PRF-24139) and work vest.

**Standard:** Maintain a cargo handling system, found aboard Army vessels IAW TM 55-1925-273-10-1, TM 55-1915-288-14P, and FM 55-17, to maintain safety and readiness.

**Special Condition:** None

**Special Standards:** None

**Special Equipment:**

**Safety Level:** Medium

**MOPP:**

Task Statements
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**Cue:** None

**DANGER**

None

**WARNING**

None

**CAUTION**

None

**Remarks:** None

**Notes:** None

### Performance Steps

1. Maintain a boat davit system onboard the Logistics Support Vessel IAW TM 55-1915-288-14P.

a. The davits have been provided with polyamid sheaves, running on stainless steel shafts. A special maintenance of the turning parts is not necessary.



Boat Davit

Figure 551-881-8135\_01

b. All thread ends, required for adjustment purposes, must always be kept greased.

2. Maintain winches onboard Army vessels.

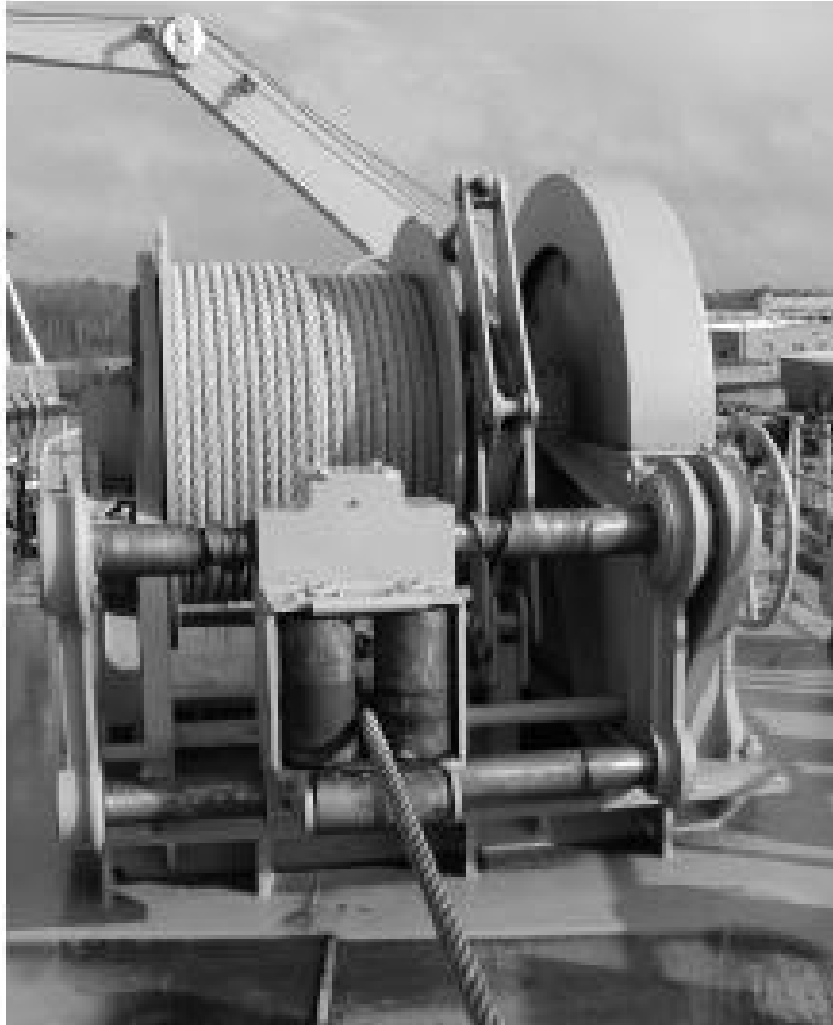
a. All lubrication points, if any, must be lubricated by means of a high pressure grease gun at regular intervals.

b. All gearboxes have the tooth wheels running in an oil bath; the oil must be changed once a year.

c. The gearboxes have been provided with a drain plug on the lower side.

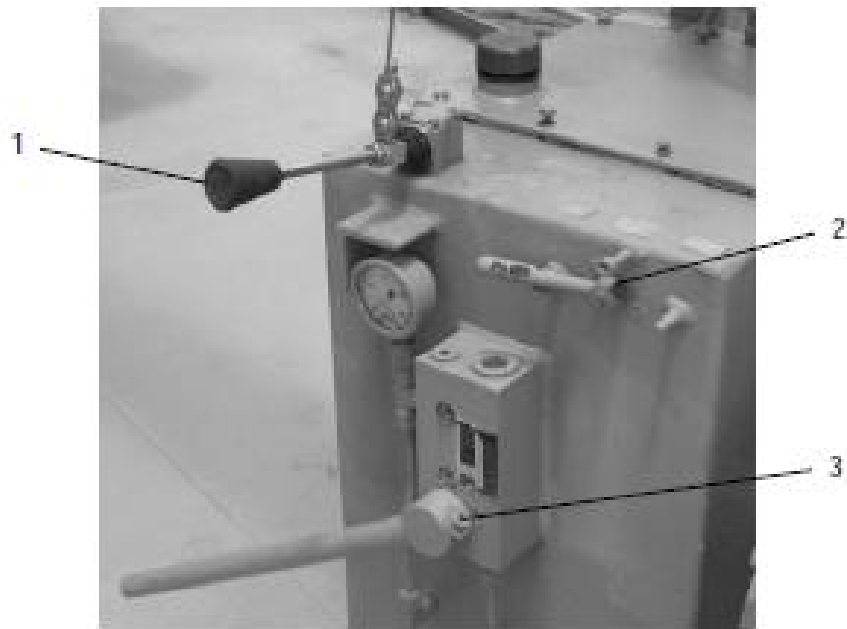
d. side. Before filling the gearbox with new oil, it should be cleaned thoroughly with scouring oil.

e. The wire ropes must be greased at regular intervals.



Stern Anchor Winch Assembly  
Figure 551-881-8135\_02

- f. The safety brake linings should be checked for wear.
- g. The oil level in the gearbox of the winch(es) must be checked.
- h. The brake gear and the brake control mechanism should be checked periodically.

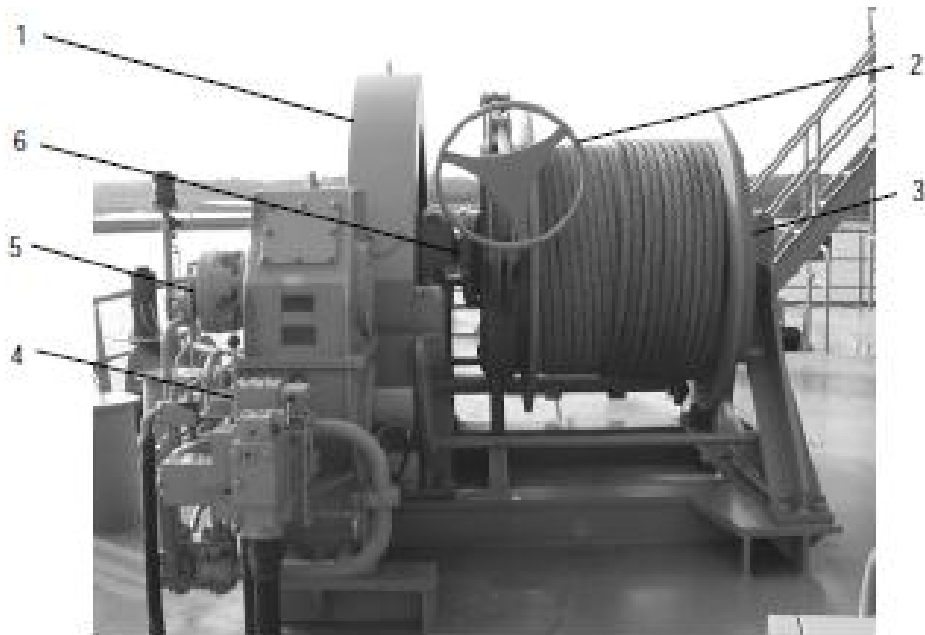


KEY	CONTROL OR INDICATOR	FUNCTION
1	Slew Lever	Used to slew the davit.
2	Accumulator Control Valve Lever	Used to open/close the accumulator control valve.
3	Brake Lever	Used to stop the winch.

Slew and Brake Control  
Figure 551-881-8135\_03

i. The windings on the drum must be laid tightly against each other, they should not be laid over one another.

j. It is advisable to un-reeve the wire ropes once a year and to turn the wires before they are reeved anew (if possible).



LEGEND

1. STERN ANCHOR WINCH
2. CABLE LIFTER BRAKE
3. ROPE DRUM
4. DIRECTIONAL CONTROL VALVE
5. HYDRAULIC WINCH MOTOR
6. CABLE LIFTER DOG CLUTCH

Stern Anchor Winch  
Figure 551-881-8135\_04

3. Maintain hydraulic crane on the Large Tug.

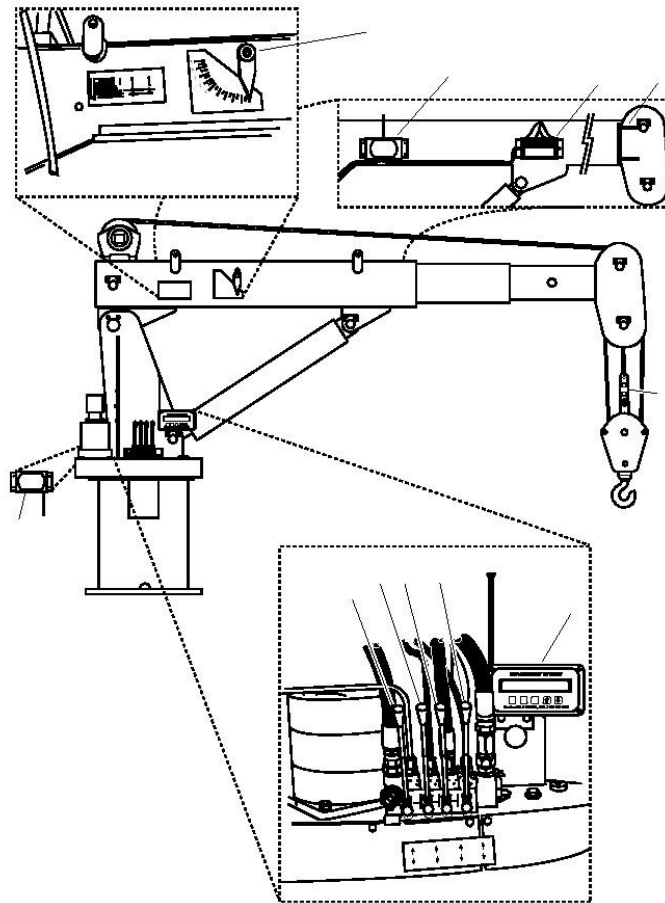


Figure 551-881-8135\_05  
Crane (LT)

a. The following items shall be inspected daily or prior to use:

(1) All controls and operating mechanisms for maladjustments, excessive wear, or contaminated by leaking lubricants or foreign material.

(2) All safety devices for malfunction.

## CAUTION

Raise and lower the hoisting mechanism very slowly when testing limit switches.

(3) All installed hoist and travel limit switches should be checked for failure by raising and lowering throughout the full range of the lifting device with no load other than that of the hoisting mechanism.

(4) Air or hydraulic systems components for deterioration or leakage.

(5) Crane load hooks for deformation, cracks, wear, damage or malfunctioning latch and hook attachment.

(6) Electrical apparatus for malfunction, signs of excessive deterioration, dirt, and moisture accumulation.

(7) Hoist chains for excessive wear, twist, distorted links, stretch.

## **CAUTION**

When any of the above items are found to exist, further crane operations will be discontinued until it has been corrected or determined to present no hazard.

b. Monthly Inspections will include the items above and the following:

(1) Wire Rope - Make a thorough documented inspection of all ropes.

(2) Broken Outside Wires - Those sections of the rope subjected to reverse bends and operation over small diameter drums or sheaves require particularly close attention.

(3) Reduction of Rope Diameter - Measure for reduction of rope diameter; several measurements shall be taken at locations subject to the most stress and wear;

(4) Worn Outside Wires.

(5) Corroded, Broken, or Frayed Wires at End Connections.

(6) Corroded, cracked, bent, worn, improperly sized, or improperly applied end connection.

(7) Severe kinking, crushing, cutting, or unstranding.

(8) Evidence of damage due to welding arc or other heat sources.

c. Annual Inspections should include the inspections above and the following:

(1) Proper marking to include load ratings and date of next periodic inspection.

(2) Evidence of mishandling and/or damage.

(3) Deformed, cracked, broken, missing or corroded members in crane structure and boom.

(4) Cracked or worn sheaves and drums

(5) Worn, cracked, or distorted parts such as pins, bearings, shafts, gears, rollers, and clamping devices.

(6) Electrical apparatus, for signs of pitting or any deterioration of controller contactors, limit switches and pushbutton stations.

(7) Excessive wear on brake and clutch system parts, linings, pawls, and ratchets.



(8) Load, boom angle, wind, and other indicators over their full range for any significant inaccuracies.

(9) Steering, braking, locking, and travel devices for malfunction.

(10) Boom - Check for bends, distorted sections, broken welds, excessive corrosion, loose bolts or rivets, and operable weights and boom angle indicator.

(11) Hydraulic Systems.

## WARNING

Be very careful when operating or working near moving machinery.  
Running engines, rotating shafts, and other moving machinery parts could cause personal injury or death.

(a) Hydraulic Hoses, Fillings, and Tubing, particular attention should be given to those hoses which flex in normal operation of crane functions.

(b) Hydraulic oil leakage at any threaded or clamped joint that cannot be eliminated by normal tightening or recommended procedures.

(c) Evidence of excessive abrasion or scrubbing on the outer surface of a hose, rigid tube, or hydraulic fitting.

(d) Any evidence of hydraulic oil leakage at the surface of the flexible hose or its junction with the metal end couplings.

(e) Any blistering or abnormal deformation to the outer covering of the hydraulic hose.

(12) Inspect hooks for cracks, throat opening of more than fifteen percent in excess of normal, more than a 10 degree twist from the plane of the unbent hook, or wear exceeding ten percent of the original dimensions.

(13) Perform documented inspection of hoist chains for excessive wear, twist, distorted links, or stretch beyond manufacturer's recommendations.

(Asterisks indicates a leader performance step.)

**Evaluation Preparation:** Given a Logistics Support Vessel, Large Tug, and other Army vessels, Soldier will load and unload cargo using the cargo handling system safely IAW TM 55-1925-273-10-1, 55-1915-288-14P, and FM 55-17.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Maintained a Boat Davit System Onboard the Logistics Support Vessel IAW TM 55-1915-288-14P.			
2. Maintained Winches Onboard Army Vessels IAW FM 55-17.			
3. Maintained Hydraulic Crane on the Large Tug IAW TM 55-1925-273-10-0.			

**Supporting Reference(s):**

Step Number	Reference ID	Reference Name	Required	Primary
	FM 55-17	(Superseded) CARGO SPECIALISTS` HANDBOOK	No	No
	TM 55-1915-288-14&P	OPERATOR'S, UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL	No	No
	TM 55-1925-273-10-1	OPERATOR'S MANUAL FOR INLAND COASTAL LARGE TUG (LT)	No	No

**Environment:** None

**Safety:** In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination.

**Prerequisite Individual Tasks :** None

**Supporting Individual Tasks :** None

**Supported Individual Tasks :** None

**Supported Collective Tasks :**

Task Number	Title	Proponent	Status
N/A	N/A	Not Selected	Obsolete